



# Fermi National Accelerator Laboratory

Technical Division-Machine Shop

## Welder Performance Qualification Record

In accordance with WPS AMI/Orbital 003

Date

3/10/2010

Revision:

Revision Date :

Remarks:

Welders Name:	Leonard Harbacek	Fermi ID#	12261N	Weld Stamp	8
WPS Number:	AMI/Orbital 003	Test Coupon	<del>Production Weld</del> N/A		
Welding Process/Type	GTAW/Orbital		Automatic		
Type of Joint Welded:	Pipe Groove Weld	Joint Types Qualified:	Groove and Fillet Welds		
Base Metals Welded:	ASTM A269-04 316/316L		S8, Group 1		

Welder Variables (QW-350)	Actual Variables Used	Range Qualified
AWS Classification:		
Filler Metal Specification (SFA)	N/A	
Filler Metal F-No.	N/A	
Filler Metal Product Form	N/A	
Consumable Insert	No Insert Used	Without Insert
P- or S- Number to P- or S- Number:	S8, Group 1	All Qualified Materials
Base Metal Thickness (inches):	.049"	WPS Limits
Pipe Diameter (inches):	.500" Ø	Unlimited
Deposit Thickness (inches)	.049"	WPS Limits
Welding Position/Progression	5G	All
Backing Gas	Argon 99.9%	
GTAW-Current/Polarity	DCEN/Pulsing	

Machine Welding Variables (QW-360)	Actual Variables	Range Qualified
Direct/Remote Visual Control	N/A	N/A
Automatic Voltage Control	N/A	N/A
Automatic Joint Tracking	N/A	N/A
Welding Position	N/A	N/A
Consumable Insert	N/A	N/A
Backing	N/A	N/A
Single/Multiple Pass Per Side	N/A	N/A

Fillet Welds: Qualified to make fillet welds of any size on all base material thickness and pipe diameters of any size.

Notes:

ASME IX Guided Bend Test (QW-160)				ASME IX Weld Tensile (QW 150)		
Face Bend #1	Acceptable	Root Bend #1	Acceptable	Specimen 001	Ductile-WM	Test Reference No.
Face Bend #2	Acceptable	Root Bend #2	Acceptable	Specimen 002	Ductile WM	T002962

Visual examination results: Visual exam satisfactory per QW-302.4 and QW-194

Radiographic test results: N/A	Radiographic tests conducted by:	N/A
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Mechanical Tests Conducted by: Exova Materials Testing Laboratory

Welding of Test Coupon conducted by: Fermi National Accelerator Laboratory	Verification Number	2012010-3RH
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We certify that the statements in this record are correct and that the test coupons were prepared, welded, and tested in accordance with the requirements of Section IX of the ASME Boiler and Pressure Vessel Code.

Fermi National Accelerator Laboratory

Authorized Representative

Date